Design and Development of Tailored Interactive Education Program for Safe Medication of the Elderly

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Abstract and Objective

Safe medication is one of major health issues in the elderly population who has chronic multiple diseases. The purpose of this paper was to describe a research in progress which purpose is to develop a tailored interactive education program using age friendly interface to prevent medication misuse and abuse of the elderly in the community settings. A program for safe medication is being developed using the following five processes: 1) Analysis stage 2) Designing stage 3) Content Framing and development stage 4) Program application stage 5) Evaluation stage. The completed program would be applied to the elderly in the community and tailored interactive education could be an effective teaching media of safe medication for the elderly in the information age.

Keywords:

Computer, Education, Elderly, Medication

Introduction

Failure to take medication appropriately, adverse drug reaction, and multiple drug interactions causes a big barrier to optimal health in older adults. Medication related health problems in the Korean elderly have been increasing very rapidly with increasing of aged population in Korea. Age friendly interactive education system can offer individualized tailoring for education to the elderly who is vulnerable to unreliable health information.

The purpose of this paper is to describe a research in progress which purpose is to develop a tailored interactive education program using age friendly interface to prevent medication misuse and abuse of the elderly in the community settings.

Methods

In analysis stage, the topics of education program are developed based on a survey about the community elders' health and medication related characteristics and literature review. According to the target elders' needs for education, the topics are selected and validated with the experts in aging and medication area. In designing stage, the education information (lecture, interface between learner and contents, learner and computer, motivation) are designed with the detailed functions. The self management model proposed by U.S. Preventive Task Force called as "Five As" was used to guide each step of the program-assess (knowledge, attitude, behavior), advise (individualized education), agree & assist (process evaluation & safe medication plan), and arrange (follow-up education & evaluation).

Results

To define the target user's need, a survey with the older persons in the community and the review of national survey data with the Korean elderly (2008) were done. According to national survey (2008), 82.1% of elderly take medicine showing 92.7% for prescription drug and 22.9% for nutritional supplements. Focused survey with the elderly in the community showed very low mean scores of medication knowledge and health literacy.

The target user's need assessment defined the user's need for the program as follow: 1) The elderly with chronic conditions taking multiple medications could be the main target of program; 2) For non prescription drug education, OTC drug such as pain relievers, antacids, acid reducers, cold remedies, and nutritional supplements need to be covered; 3) For prescription drug, medication for hypertension, arthritis, and cardiac disease need to be focused on the contents; 4)The contents need to be adjusted to levels of health literacy and medication knowledge.

Conclusion

The ultimate objective of this project will be to determine how best to prepare the tailored individualized education on medication for the old aged group with different health and computer literacy and health status.

References

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